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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/849,445

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Ake Danielsson

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EXAMINER

ABDELWAHED, ALI F

ART UNIT

PAPER NUMBER

3722

DATE MAILED: 08/25/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/849,445

Applicant(s)

DANIELSSON ET AL.

Examiner

Ali Abdelwahed

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 May 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) 15-19 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-14 and 20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-14 and 20, drawn to a drill body, classified in class 408, subclass 57.
- II. Claims 15-19, drawn to a method of the manufacture of a drill body, classified in class 76, subclass 108.1.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case the process as claimed can be used to make another and materially different product, such as a rock drill, well drill, or twist drill.

Because these inventions are independent or distinct for the reasons given above and have acquired a separate status in the art in view of their different classification, restriction for examination purposes as indicated is proper.

Because these inventions are independent or distinct for the reasons given above and the inventions require a different field of search (see MPEP § 808.02), restriction for examination purposes as indicated is proper.

During a telephone conversation with Mr. Ronald L. Grudziecki on August 14, 2006 a provisional election was made with traverse to prosecute the invention of Group I, claims 1-14 and 20. Affirmation of this election must be made by applicant in replying to this Office action. Claims 15-19 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention.

Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

The rejection based on the elected claims is as follows:

Claim Objections

Claim 7 is objected to because of the following informalities:

It is suggested that in:

Claim 7, line 1, delete "1" and insert --6--.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-4 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S.

Patent No. 5,860,773 to Blomberg et al.

Blomberg et al. discloses a drill body (1) defining a center axis of rotation and including an internal through-channel (13) for chip evacuation, the through-channel including front and rear openings in the body (see fig. 3), the body including at least one cutting edge (10C) integral therewith (see fig.1). A front head (2) and a rearwardly extending hollow shaft (4) adapted for connection with a tube, wherein the at least one cutting edge is disposed on the head (see fig.1). The shaft includes a male screw thread (5).

Claims 1-4, 6, and 7 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 6,019,553 to Yakamavich, Jr.

Yakamavich, Jr. discloses a drill body (40) defining a center axis of rotation (A) and including an internal through-channel (46) for chip evacuation, the through-channel

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including front and rear openings in the body (see fig. 5), the body including at least one cutting edge (62) integral therewith (see fig. 6). A front head (44) and a rearwardly extending hollow shaft (42) adapted for connection with a tube, wherein the at least one cutting edge is disposed on the head (see fig. 5). The shaft includes a male screw thread (see fig. 5). A breakage weakening comprising a groove formed in an outer periphery of the shaft arranged to separate the head from the shaft if the drill head were to become stuck in a work piece (see fig. 5, defined by the peripheral groove between and separating parts 44 and 42).

Claims 1 and 14 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 2,969,699 to Kleine.

Kleine discloses a drill body (10) defining a center axis of rotation and including an internal through-channel (12) for chip evacuation, the through-channel including front and rear openings in the body (see figs.1-3), the body including at least one cutting edge (16) integral therewith (see figs.1, 2). The at least one cutting edge is stepped to form part edges (see fig. 2, and columns 1 and 2, lines 68-72 and 1-2, respectively).

Claims 1, 2, and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,515,230 to Means et al.

Means et al. discloses a drill body (20) defining a center axis of rotation and including an internal through-channel (36) for chip evacuation, the through-channel including front and rear openings in the body (see fig. 5), the body including at least one

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cutting edge (30) integral therewith (see figs.1-3). A front head (23) and a rearwardly extending hollow shaft (22) adapted for connection with a tube (defined by the hatched element attached to shaft 22 in figure 1) detachably connected to a rear end of the drill body (see figs.1, 2), wherein the at least one cutting edge is disposed on the head (see figs.1, 2, 5).

Claims 1, 10, 11, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,595,305 B1 to Dunn et al.

Dunn et al. discloses a drill body (20) defining a center axis of rotation (A) and including an internal through-channel (28) for chip evacuation, the through-channel including front and rear openings in the body (see fig.1), the body including at least one cutting edge (76) integral therewith (see fig.1). A bridge (defined by the roof 41, 43 of the drill body), which bridges over a front mouth of the through channel to divide the mouth into a plurality of chip inlet openings (38), the at least one cutting edge comprising a plurality of cutting edges disposed adjacent respective chip inlet openings (see fig.1). Each cutting edge extending from a centering tip (G) disposed on the axis to an outer periphery of the body (see fig. 2). The plurality of chip inlet openings consists of three spaced apart by 120° , and the plurality of cutting edges consists of three spaced apart by 120° (see figs.1, 2). The drill body includes a front head (22) having an outer envelope surface (30) configured symmetrically relative to the axis and is free of guiding and supporting strips (see fig.1).

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Claims 1, 10, 12, and 13 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,948,890 B2 to Svensson et al.

Svensson et al. discloses a drill body (11) defining a center axis of rotation (CL) and including an internal through-channel (13A, 13B) for internal chip evacuation and front and rear openings in the body, which includes at least one cutting edge integral therewith (see figs. 1A-2B). A bridge (defined by ref.#21), which bridges over a front mouth of the through channel to divide the mouth into a plurality of chip inlet openings (29A, 29B), the at least one cutting edge comprising a plurality of cutting edges (26A, 26B) disposed adjacent respective chip inlet openings (see fig. 2E). Each cutting edge extending from a centering tip disposed on the axis to an outer periphery of the body (see figs. 2A, 2E). The plurality of cutting edges consist of two mutually parallel cutting edges forming a chisel (27) on which the centering tip is disposed (see figs. 2A, 2E). The drill body includes a front head (22) having an outer envelope surface (31) configured symmetrically relative to the axis and is free of guiding and supporting strips (see figs. 2A, 2B).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8 and 9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yakamavich, Jr. in view of Blomberg et al.

Yakamavich, Jr. discloses the at least one cutting edge consisting of a single cutting edge (62) extending from a tip lying on the axis to an outer periphery of the body (see fig. 6), the through channel including a rear bore (46) extending coaxially with the axis (see fig. 5), and a front bore defining a chip inlet (48). At least two circumferentially spaced strips (86, 88) disposed on the outer periphery of the body for guiding and supporting the head (see column 3, lines 37-38). However, Yakamavich, Jr. fails to teach the front bore defining the chip inlet forming an oblique angle relative to the axis of rotation, and the the chip inlet being generally funnel-shaped and narrows in cross-section in a direction toward the rear bore. Nevertheless, Blomberg et al. teaches a drill body (1) comprising the chip inlet (13) being generally funnel-shaped and narrows in cross-section in a direction toward the rear bore with the front bore defining the chip inlet forming an oblique angle relative to the axis of rotation (see fig. 3). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the drill body of Yakamavich, Jr., in view of Blomberg et al., such that it would provide the drill body of Yakamavich, Jr. with the concept of the aforementioned limitations for the purpose of providing a more direct and precise chip evacuation from the chip inlet toward the rear bore.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the

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unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-8 and 10-14 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-15 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because the claimed subject matter of the present application is fully disclosed in the specification of the co-pending application and covered by the claims of the co-pending application. The claims of the co-pending application are inclusive for they are drafted using the "comprising-type" format and cover the claimed subject matter of the present application. The limitations of claim(s) 1-14 of the present application are disclosed in claim(s) 1-15 of the copending application.

Claim 1 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 2 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1 and 2 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 3 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1-3 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 4 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1-4 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 5 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1-5 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 6 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1, 2 and 6 of copending

Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 7 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1 and 7 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 8 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1, 2 and 8 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 10 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1 and 8 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 11 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1, 8, and 9 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are

not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 12 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1, 8, and 10 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 13 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1, 8 and 11 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

Claim 14 is provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claim(s) 1 and 12 of copending Application No. 10/849,447. Although the conflicting claims are not identical, they are not patentably distinct from each other because they differ only in claim terminology but encompass the same claimed subject matter.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ali Abdelwahed whose telephone number is (571) 272-

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4417. The examiner can normally be reached Monday through Friday from 10:00 A.M. to 6:30 P.M.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Monica S. Carter can be reached on (571) 272-4475.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the examiner or the examiner's supervisor.

AA
08/14/2006


MONICA CARTER
SUPERVISORY PATENT EXAMINER